

AMENDMENTS TO THE CLAIMS

PATENT
Attorney Docket No. UCSD-04742

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1-87. (canceled)

88. (currently amended) A method for screening for modulators of *Thermomyces lanuginosus*- γ (TL- γ)TL- γ comprising in operable order, the steps of:

- (a) providing:
- (i) biologically active TL- γ , wherein the biological activity of said TL- γ comprises plus end-directed microtubule motor activity, and wherein said biologically active TL- γ comprises a motor domain sequence, wherein said motor domain sequence shares at least sixty percent sequence identity with the sequence comprising amino acids 1 through 357 of SEQ ID NO:1,
 - (ii) a candidate agent, wherein said candidate agent is provided in a test concentration and a control concentration, and
 - (iii) a testing assay;
- (b) contacting said biologically active TL- γ with said test concentration of said candidate agent in said testing assay to produce a test mixture;
- (c) contacting said biologically active TL- γ with said control concentration of said candidate agent in said testing assay to produce a control mixture;
- (d) assaying the level of TL- γ activity in said test mixture;
- (e) assaying the level of TL- γ activity in said control mixture;
- (f) comparing the TL- γ activity of said test mixture and said control mixture, wherein the TL- γ activity comprises one or more of microtubule gliding, microtubule binding, microtubule depolymerization and ATPase activity, and wherein differences in the TL- γ activity in said test mixture and said control mixture indicate that said candidate agent is a modulator of TL- γ .
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